

REMARKS/ARGUMENTS

Claims 1-32 were pending at the time of the Office Action.

Claims 1 and 26 are amended to clarify that the profile rail is for the insertion assembly of ceiling panels for grid ceilings.

Claim 17 is amended to clarify the claim. This amendment addresses the objection under Section 112.

Rejections under 35 USC § 103

The rejections of claims 1-32 as obvious over Downing, Jr. (U.S. 3271920) in view of Chicago (WO 97/12101), and further in view of LaLonde (U.S. 5761868) are respectfully traversed. The claimed profile rail for the insertion assembly of ceiling panels for grid ceilings has features not expected by merely combining the cited prior art. Thus, the claims are not obvious.

Profile rails for the insertion assembly of ceiling panels for grid ceilings have special requirements. First, as described at paragraphs [0009] and [0010] of the specification, openings must be provided in the web at regular intervals to form desired kink points in case of fire. These kink points make it likely that on large expansion due to high heat development from a fire, the profile rails kink at the desired kink points due to the forces occurring on the expansion, whereby a tearing of the suspensions is prevented.

In known profile rails, these openings are produced by cutting out material parts of the main part of the web, which results in waste of materials. Since the required material for the profile rail makes up a substantial portion of the production costs, this is a big disadvantage of the known profile rails.

Further, a second requirement of profile rails for the insertion assembly of ceiling panels for grid ceilings is that the ceiling panels, which are usually arranged horizontally on the upper surface of the bottom chord of the profile rail, must also be removable from the profile rail to allow, for example, a service engineer to have access to technical equipment typically arranged in the space above the ceiling panels. In order to remove the ceiling panels, the profile rail must allow the edges of the ceiling panels lying on top of the bottom chord to move upwards to bring the ceiling panel in a slanted orientation so that it can finally be moved down through the spaced apart section rails.

Finally, since the bottom chord of the profile rails are visible from a stand point below the ceiling, it is important that the bottom chord be adapted to provide a clean visual downward termination without preventing the just mentioned possibility of removing the ceiling panels for service access.

All of these requirements are fulfilled by a profile rail in accordance with the present invention.

First, there are provided apertures 30 in the web 29 of the base body 25 of the profile rail which build the required kink points in case of fire. In contrast to the known profile rails, the material cut out for the production of the apertures is, however, not wasted but used by folding out of the apertures and in the same production step building parts of the bottom chord. This means that the invention material can be conserved and in addition production is simplified since producing the required apertures for the kink points and the bottom chord can be carried out in a single step.

Second, the base body of the profile rail is formed as a T-section, including the web 29 comprising apertures 30 as well as the bottom chord 28. Through the form of a reverted T-section, it is guaranteed that the ceiling panels lying on top of the bottom chord can reliably be moved upwards since the base body of the T-section does not comprise any protrusions or transverse portions which could prevent the ceiling panels being moved upwardly.

Third, according to the invention, the side of the bottom chord disposed remote from the web is provided with a screening strip which on the one hand provides a clean visual downward termination of the profile rail but on the other hand does not disturb the mentioned possible upward movement of the ceiling panels should that be necessary for service.

The Office Action states that all features except the screening strip are already disclosed in Downing. This is not true as explained below.

First, Downing does not disclose a profile rail for the insertion of ceiling panels for grid ceilings. Rather, Downing teaches a profile rail for producing a double-wall construction. A profile rail for double-wall construction has completely different requirements than a profile rail for the insertion assembly of ceiling panels for grid ceilings.

A first obvious difference is that a profile rail for the production of a double-wall construction is arranged vertically whereas a profile rail for the insertion assembly of ceiling panels for grid ceilings is arranged horizontally. This is not only an importantly different arrangement, but results in different requirements for the corresponding profile rails. The horizontally arranged profile rails according to the invention must be able to carry horizontally aligned heavy ceiling panels and at the same time allow these ceiling panels to be easily removed. In contrast, the profile rails for producing a vertically arranged double-wall construction do not have to carry the vertically arranged panel members but simply hold them in the vertical position.

For this reason, the profile rail of Downing does not comprise a bottom chord as is present in the claimed profile rails.

In addition, as can be seen from the figures of Downing, the vertically aligned panels are clamped between a transverse portion 17 and lip 21, or between laterally extending tabs 20 and clamping tab 22 as described in column 3, lines 16-26 of Downing. This clamping results in the panels, once positioned between the clamping elements, no longer being removable from the profile rail, as clearly shown in Figs. 5-7.

Further, the profile rail according to Downing does not have a base body that is formed as a T-section. From Fig. 1 of Downing, it is clearly seen that the base body of the profile rail which includes web 19, transverse portion 17 and auxiliary web 16 is totally different from the

straight form of the corresponding base body of a profile rail according to the present invention, the corresponding base body making up the straight main part of the T-section. The transverse portion 17 of the base body of the profile rail of Downing, however, prevents the panels clamped between the transverse portion 17 and the lip 21 from being removed as is possible with a T-formed section according to the present invention.

Further, as admitted in the Office Action, Downing does not show a screening strip but describes in column 3, lines 27-35 that lip 21, web 16 and clamping tabs 22 are plastered to be completely obliterated from view. Plastering tip 21, web 16 and clamping tabs 22 means that the panels cannot be removed from the profile rail of Downing.

All of these differences show that a person skilled in the art would not modify the profile rail of Downing when trying to improve a profile rail for the insertion assembly of ceiling panels for grid ceilings. The different features and requirements of profile rails for the insertion assembly of ceiling panels for grid ceiling and of profile rails for producing double-wall constructions are totally distinct so that the context of these different parts cannot be transferred from one construction to another.

Moreover, the profile rails of the present invention have an unexpected property not shared by the combination of Downing and Chicago. That is, the panels from the combination of Downing and Chicago are not expected to be removable once inserted into the respective profile rail, while the ceiling panels of the profile rails in the present invention are removable. Consequently, the profile rail of the present invention yields much more than the predictable results of combining Downing and Chicago.

As further seen from Fig. 2 of Downing, the apertures from which tabs 20 and clamping tabs 22 are folded out are not provided in the main part of the base body but in the auxiliary web 16. Thus, even if transferred to a profile rail for the insertion assembly of ceiling panels for grid ceilings, these apertures cannot at the same time be used as kinking points since corresponding kinking points must be provided in the main part of the web in order to have profile rails that will indeed kink in case of fire. In the main part of web 10, however, there are provided regular apertures 15 which have been produced by cutting out material which is wasted. This is different from the invention where the same apertures are provided in the main part of the web in order to be used as kinking points at the same time as for producing the bottom chord parts without wasting any material.

Downing cannot give any indication to this concurrent usage.

Finally, a person skilled in the art would also not combine Downing with Chicago by adding a ceiling strip to the lip 21 and the tabs 22 since these parts are described in Downing to be plastered, which prevents them from being provided with a ceiling strip. Thus, Downing teaches away from a combination of Downing with Chicago.

Moreover, a skilled person would refrain from providing a profile rail for the production of a double-wall construction with a screening strip since the surface of a wall must be as smooth as possible and a screening strip which is visible and not in continuous alignment with the panels would not be considered by the skilled person for producing a wall construction.

In summary, Downing and Chicago fail to teach many features of the claims, and the combination of Downing and Chicago is not an obvious solution. As such, claims 1-32 are not obvious.

In view of the foregoing amendments and remarks, Applicants submit that the present application is in condition for allowance.

No fee is believed due. However, the Commissioner is hereby authorized during prosecution of this application and any related appeal, to charge any fees that may be required (except for patent issue fees required under 37 CFR §1.18) or to credit any overpayment of fees to Deposit Account No. 50-0337. If an extension of time is required in connection with this paper, please consider this a Petition therefor and charge any fees required to Deposit Account No. 50-0337.

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Respectfully submitted,



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